

Freeing industrial gases from hydrogen sulfide with
recovery of elemental sulfur. M. V. Hoffman, S. G.
Aroney and R. M. Mitchell. *Ind. Eng. Chem. Anal. Ed.* (U. S.
S. R.) 1953, No. 5-6, 40-45; cf. *Chem. Abstr.* 48, 2873. A
process for S recovery from gases by absorption of H_2S by
an alk. soln. of As_2O_3 is described. When H_2S is absorbed
in a freshly prepd. alk. soln. of As_2O_3 , Na_2AsS_4 and
 $Na_2As_2S_5$ are formed. After blowing air through
the soln., oxidation of As^{III} to As^V takes place with forma-
tion of $Na_2As_2S_5$. James Swetzel

The preparation of sulfur from carbon gas by a method analogous to the Thiers process on a laboratory scale in Bamberg. M. V. Hofman, S. G. Aronov and H. M. Mikhelev. *Tr. Khim.-Fiz. (Moscow) 1936, No. 8, 17-23; cf. C. A. 37, 408.*—Carbon gas is passed at the rate of 300 cu. m. per hr. through the app. described by H. and A. (C. A. 28, 2875). The liquid which absorbs the H₂S circulates at 25 l. per cu. m. of gas. It contains 5-7 g. per l. of NaOH. The ratio of NaOH to Na2CO3 must not exceed 3:1 unless NH4OH is present, in which case, a slightly higher ratio is permissible. In the regenerator 80 cu. m. of air per hr. is sufficient. The whole process is run at 40°. Removal of H₂S from the gas is 98-99%; recovery of S from the soln. is 98-100%. H. M. Lancaster

M. M. Langston

ASD-SL-6 METALLURGICAL LITERATURE CLASSIFICATION

ca 21

Cooling the gas same in coke ovens. M. V. Hoffmann and D. S. Dorofeyev. *Chem. and Chem. Technol.* No. 13, 21-7 (1935); *Chemie & Industrie* 36, 913-14. --- Cooling with H₂O and steam is preferable to the use of H₂O alone. A. Papiernu-Couture

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

[illegible]

LIST AND JMC ORDER		PROCESS AND PREPARE	
<p>21</p> <p>The problem of the production of sulfur and sulfuric acid in the coking of coal. M. V. Medvedev. <i>Coal and Chem.</i> (U. S. S. R. J. V. No. 4-5, 19-25(1967); <i>Chem. Zvezd.</i> 1968, 1, 3163. Suggestions are offered for the coking of the pyrites from Donets coal and methods of producing H_2SO_4 directly from the H_2S-contg. gases discussed.</p> <p>M. G. Moser</p>		<p>21</p>	
<p>ADD. S. L. A. METALLURGICAL LITERATURE CLASSIFICATION</p>			

RUSSIAN ALPHABET																										ENGLISH ALPHABET																									
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<div style="position: absolute; top: 10px; left: 10px; font-size: 2em;">R</div> <div style="position: absolute; bottom: 10px; right: 10px;"> <p>Goffman, M. W. ACTION OF MIXTURES OF COKE GAS AND STEAM AT HIGH TEMPERATURES ON THE REFRACTORIES OF COKE OVENS. <i>Coke and Chem. U.S.S.R.</i> 7:121-25 (1967). The conclusions of Deschamps (Coke and Chem. U.S.S.R. 17:61-221 (1968)) concerning the attack of coke oven gas and steam on oven refractories are disclaimed, and the stability of the refractories under these conditions is attested.</p> </div>																																																			

1st and 2nd entries

PERIODS AND PROPERTIES INDEX

27

Influence of pyrites on the final sulfur content of coke
 M. V. Hofman, I. A. Kopelevich and Kh. M. Mouskova
Chem. Eng. (U. S. S. R.) 1937, No. 8, 10-13.
 Decompos. of FeS_2 to FeS commences at 500° and is practically complete at 600°. In presence of C the reaction begins at a lower temp., but residual S is greater, probably owing to adsorption of S by C. Under conditions of coking, loss of S amts. to 30% and of sulfide-S to 70%.
 B. C. P. A.

ASO-SLA METALLURGICAL LITERATURE CLASSIFICATION

1937-1938

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2999-3000

Evaluation of various methods for the production of sulfuric acid from coke-gas hydrogen sulfide. M. V. Hofman and M. S. Litvinenko. *Coke and Chem.* U. S. S. R., 1939, No. 3, 39-42; *Khim. Referat. Zhur.* 1939, No. 7, 73-4; cf. C. A. 33, 6588. For the recovery of H_2S from coke-oven gas, the following methods were investigated: "Pit," "Schond," phenolate, absorption with caustic soda, NH_3 absorption and phosphate. None of these methods is recommended for use in the industry.

W. R. Henn

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THE PROSPECT OF UTILIZING COAL PYRITE. M. V. Hoffman and G. F. Vonnell. *Coke and Chem.* (U. S. S. R.) 11, No. 3, 6-10(1941); *Chem. Zvest.* 1943, 1, 1002. The possibilities of using coal pyrite in the USSR plants at the mouth of the U. S. S. R. are discussed. At present only coal pyrite sorted by hand is used in the USSR plants. It is roasted in mixts. with pyrites from the Ural. By using settling equipment still larger amts. of pyrite concentrate can be obtained from the gang of the coal of the Donets region. This can be used in mixts. with pyrites from the Ural for the production of H₂SO₄. M. G. Moore

MATERIALS
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ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION
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Gottman, M. U.

Mixture of phthalic and male anhydrides. M. U. Gottman and A. I. Golub. U.S.S.R. 100,037, Sept. 20, 1966. The mixt. is obtained by contact vapor-phase oxidation of fluorene with air. As catalyst is used fused V_2O_5 which insures a yield of phthalic anhydride up to 80%.

M. Hosh

1-4E3c
1-4E4j
D.C.

VODNEV, G.G.; SHELKOV, A.K.; DIDENKO, V.Ye.; FILIPPOV, B.S.; TSAREV, M.H.;
 ZASHVARA, V.G.; LITVINENKO, M.S.; MEDVEDEV, K.P.; MOLODTSOV, I.G.;
 LGALOV, K.I.; RUBIN, P.G.; SAPOZHNIKOV, L.M.; TYUTYUNNIKOV, G.N.;
 DMITRIYEV, M.M.; LEYTES, V.A.; LERNER, B.Z.; MEDVEDEV, S.M.; REVYAKIN,
 A.A.; TAYCHER, M.M.; TSOGLIN, M.E.; DVORIN, S.S.; RAK, A.I.; OBUKHOV-
 SKIY, Ya.M.; KOTKIN, A.M.; ARONOV, S.G.; VOLOSHIN, A.I.; VIROZUB, Ye.V.;
 SHVARTS, S.A.; GINSBURG, Ya.Ye.; KOLYANDR, L.Ya.; BELETSKAYA, A.F.;
 KUSHNIREVICH, N.R.; BRODOVICH, A.I.; NOSALEVICH, I.M.; SHTROMBERG, B.I.;
 MIROSHENICHENKO, A.M.; KOPELIOVICH, V.M.; TOPORKOV, V.Ya.; APOVIN, K.B.;
~~GOFTMAN, M.V.~~; SEMENENKO, D.P.; IVANOV, Ye.B.; PZYSAKHZON, I.B.;
~~KUZAKOV, N.K.~~; IZRAELIT, E.M.; KVASHA, A.S.; KAPTAN, S.I.; CHERMONYKH,
 M.S.; SHAPIRO, A.I.; KHALABUZAR', G.S.; SEKT, P.Ye.; GABAY, L.I.;
 SMUL'SON, A.S.

Boris Iosifovich Kustov; obituary. Koks i khim. no.2:64 '55.(MLBA 9:3)
 (Kustov, Boris Iosifovich, 1910-1955)

GOFMAN, M. V.

USSR/Chemical Technology - Chemical Products and Their Application. Treatment of
Solid Mineral Fuels, I-12

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62536

Author: Gofman, M. V., Golub', A. I.

Institution: None

Title: Catalytic Oxidation of Phenanthrene and of Anthracene Fractions.
Communication 1.

Original

Periodical: Zh. prikl. khimii, 1955, 28, No 5, 507-515

Abstract: Phenanthrene (I) and anthracene fractions were oxidized for the purpose of producing phthalic anhydride (II). The catalyst was fused vanadium pentoxide. Optimal operating conditions were determined by vapor phase oxidation of pure naphthalene. At 460°, contact time ~2 seconds and ratio of air to vaporized substance ~15 l/g yield of acidic products recomputed as II was 91% or 79% of theory. On oxidation of pure I optimal temperature 448-449°, air to I ratio (l/g) 20:1, contact time 4-6 seconds. Yield of

Card 1/2

USSR/Chemical Technology - Chemical Products and Their Application. Treatment of Solid Mineral Fuels, I-12

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62536

Abstract: acidic products recomputed as II, 69.8-71.9%. Acidic products consist on the average of 86% II and 14% maleic anhydride (III). On oxidation of redistilled, washed anthracene fraction, boiling range 310-345°, yield of acidic products on the basis of I is 112.22% of which 78.90% is II and the remainder III. In addition there are obtained 62.7% anthraquinone on the basis of theoretically calculated amount of anthracene present in the fraction. By boiling with 5% alkali and sublimation an anthraquinone MP 286° is obtained which does not depress the melting point of pure synthetic anthraquinone and has identical other characteristics with the latter. Yield of acidic products on catalytic oxidation of unwashed first anthracene fraction is 287.51% of the theoretically calculated on the basis of the phenanthrene; 188.14% of these are II and the remainder III. In addition there is obtained a 42.54% yield of anthraquinone on the basis of the anthracene. Large yield of acidic products on oxidation of anthracene fractions, exceeding greatly their yield from pure I confirms the proposition concerning the advantages of composite utilization of a number of compounds in mixtures for the purpose of obtaining the same product.

Card 2/2

GOFMAN, M. V.

Distr: 4E1/7 4E2c(1)

✓ Mixture of phthalic and maleic anhydrides with 3,6-chrysenequinone from chrysene and a mixture of 3,10- and 3,8-pyrenequinone from pyrene. M. V. Gofman and A. I. Golub. U.S.S.R. 102,704, May 25, 1968. Chrysene or pyrene or the corresponding fractions of coal tar are catalytically air-oxidized in the vapor state with fused V_2O_5 catalyst at 460° at an air to vapor ratio of 20-30 g./l. and contact time 1.5-4.5 sec. M. Hesse

1
2 May
2

GOFTMAN, M.V., doktor tekhnicheskikh nauk; GOLUB, A.I., kandidat tekhnicheskikh nauk.

Vapor-phase catalytic oxidation of coal-tar products. Koks i khim.
no.2:51-55 '56. (MLRA 9:7)

1.Ural'skiy politekhnicheskii institut (for Gofman).2.Vostechnyy
uglekhimicheskii institut (for Golub).
(Coal-tar products) (Oxidation)

GOTMAN, M.V.; KHARLAMPOVICH, G.D.

Chemical utilization of coal tar. Koks i khim.no.8:47-50 '56.

(MIRA 10:1)

1. Ural'skiy politekhicheskiy institut imeni S.M. Kirova.
(Coal tar)

GOFTMAN, M.V., doktor tekhnicheskikh nauk; BUTORIN, V.I., kandidat
tekhnicheskikh nauk.

Letter to the editor. Lit.proisv. no.9:32 S '56. (MLRA 9:11)
(Goko)

GOFMAN, M.V.

Improving the Quality of Foundry Cokes. M. V. Gofman and V. A. Rukhovich. (Leningradskaya Tekhnicheskaya Shkola, 1958, 11 p. 11 cm. [In Russian].) After indicating the importance of foundry cokes of good quality and the frequent failure of Soviet foundries to obtain this, the authors describe experiments with laboratory and semi-works scale equipment in which the effects of changes in coking charge composition on coking quality were studied. Good cokes were obtained when anthracite was added to the coking charge, especially when coking speed was increased. With anthracite contents of 25% the pitch requirements (10%) became excessive; pre-compression of the charge helped to the pitch saving; temperature enabled pitch content to be kept down to, e.g., 7-10% with an anthracite content of 70-80%.

Goffman, M. U.

Improvement of cupola coke. V. I. Babin and M. V. Goffman. *Trudy Uralsk. Politekh. Inst. im. S. M. Kirova* 1958, No. 53, 74-81. Addn. of 10% anthracite to the coke-oven charge produced coke which was coarser, more uniform in size, less porous, and less reactive. Test runs with this coke in a cupola showed decreased coke consumption, higher metal temp., and lower CO:CK₂ ratio.

E. W. Rattmann

2

1/1

GOFMAN, M.V.

GOFMAN, M.V.; GOLUB, A.I.

Catalytic oxidation of basic polycyclic compounds of coal tar and
some of its fractions. Zhur.prikl.khim. 29 no.8:1256-1265 Ag '56.
(MIRA 10:10)

1.Vostochnyy nauchno-issledovatel'skiy uglekhimicheskiy institut.
(Oxidation) (Coal tar) (Phthalic anhydride)

GOTTMAN, M. V.

Catalytic oxidation of polynuclear aromatic compounds and fractions of coal tar. III. Mechanism of vapor phase catalytic oxidation of phenanthrene. M. V. Gottman and A. I. Golub. *Russ. Proklad. Khim.* 29, 1745-51 (1951); cf. *C. & E.* 50, 8369g. --Examination of the products of vapor phase oxidation of phenanthrene showed that the liver-all reaction is much more complex than previously assumed (cf. Lal and and Rezarev, *C.A.* 31, 4319; Choudhury and Baber, *C.A.* 32, 2524) and involves many intermediates. D,10-Phenanthrenequinone-NaHSO₃ yields the diketone on treatment with 20% H₂SO₄ directly, but treatment with 20% NaOH yields a green product, which develops the normal diketone color only after diln. or standing. If the product of vapor phase oxidation of phenanthrene is treated with hot AgOH and the soln. treated with NaHSO₃, the resulting ppt. is also green and chromatographic treatment of the substance on paper in CCl₄ shows a yellow-green substance which fluoresces yellow in the ultraviolet; this shows polarography $E_{0.1}$ -1.24 v. (weak) and -1.00 v. (strong). The substance appears to be an HO deriv. and contains 3.6% HO groups, 50% of calcd. amt. for mono-OH deriv. of phenanthrene quinone.

C. M. Kneading

2

AUTHOR: Gofman, M.V., Raukas, M.M. and Kharlampovich, G.D. 530
(Urals Polytechnical Institute of S.M. Kirov).

TITLE: Methods of improvement of the technology of production of naphthalene. (Puti uluchsheniya tekhnologii proizvodstva naftalina.)

PERIODICAL: "Koks i Khimiya" (Coke and Chemistry),
1957, No. 4, pp. 45 - 47, (U.S.S.R.)

ABSTRACT: A short review of methods of production of naphthalene is given. It is concluded that the most expedient method of producing naphthalene is: preliminary distillation in order to prepare a wide fraction, its washing and exact rectification on a powerful continuous column. The limits of wide fraction can be varied but 170-300 ° or 170-280 °C is recommended. In order to provide an additional amount of heat to the naphthalene column necessary for the evaporation of reflux, re-circulation of a part of the bottom product of this column through a pipe pre-heater is proposed. The proposed scheme is shown in the diagram. It is stated that in future two grades of naphthalene will be produced: crystalline naphthalene (Eastern coke oven works) and 80-90 fraction (Southern coke oven works). The latter fraction can be used for oxidation for the production of phthalic anhydride. There is 1 table, 1 diagram and 7 Russian references.

Gofman, M V

Raw materials for organic synthesis from coal tar. M. V. Gofman and A. I. Golub. *Zhur. Priklad. Khim.* 30, 1204-1 (1957); cf. preceding abstr. A reply to Pats (see. ref.). Oxidation of the anthracene fraction gave not only phthalic anhydride but also anthraquinone and maleic anhydride, the sources for which are expensive. I. Beskovits

5
4E4
4E368

Goffman, M. O.

The mechanism of inhibition by heterocyclic nitrogen bases in the pickling of steel with sulfuric acid in the presence of certain anions. M. O. Goffman and M. V. Goffman. *Dokl. Akad. Nauk SSSR*, 1964, 168, 10, 1981-1983. The addition of SCN^- , I^- , and Br^- increases the inhibition action (γ) of quinoline retarding the soly. of Fe in 12% H_2SO_4 at 70-80°. The effect of CN^- , Cl^- , F^+ , CN^- , and $\text{Fe}(\text{CN})_6^{4-}$ is negligible. Synthesized complexes $\text{Fe}(\text{SCN})_6$, $(\text{C}_6\text{H}_5)_3\text{N}$, $\text{C}_6\text{H}_5\text{N}_3\text{SCN}$, and $\text{C}_6\text{H}_5\text{N}_3$ affect γ to the same degree as equiv. mixts. of $\text{C}_6\text{H}_5\text{N}_3$ and the corresponding anions. The max. effect is obtained when the proportion of anions added is sufficient to form the complex. $\gamma = \frac{a}{p}$ where a is the loss in wt. of Fe g./sq. cm. hr. and p is 46×10^{-4} .

Distr: 4E2c/hEhJ/hE2d

GOFTMAN, M.V.; KHARLAMPOVICH, G.D.

New technological arrangement for the processing of tar. Trudy
Ural. politekh. inst. no. 59:5-13 '57. (MIRA 11:4)
(Tar) (Distillation)

GOFTMAN, M.Y.; KHARLAMPOVICH, G.D.

Studying higher phenols from coal tar, Trudy Ural. politekh. inst.
no. 59:14-36 '57. (MIRA 11:4)

(Tar acids—Analysis)

GOTTMAN, M.V.; KHARLAMPOVICH, G.D.

Separating pure α -naphthol, β -naphthol, p-phenylphenol and
durenol out of phenols from coal tar. Trudy Ural. politekh. inst.
no. 59:37-46 '57. (MIRA 11:4)

(Tar acids)

GOTTMAN, M.V.; YEMEL'YANOVA, V.P.

Complete refining of crude anthracene, Trudy Ural, politekh. inst.
no. 59:47-67 '57. (MIRA 11:4)

(Anthracene)

GOFTMAN, M.V.; LEVIN, I.S.; BARNYAKOVA, T.A.

Producing ultrapure coal as a substitute for pitch in the manu-
facture of low ash content coke. Trudy Ural. politekh. inst.
no.59:67-73 '57. (MIRA 11:4)

(Coal preparation)

GOFMAN, M.V.

I-1

USSR/Chemical Technology - Chemical Products and Their
Application. Industrial Organic Synthesis

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2157

Author : Gofman, M.V., Kharlampovich, G.D.

Inst :

Title : Study of Antioxidant Properties of Higher Phenols.

Orig Pub : Zh. prikl. khimii, 1957, 30, No 3, 439-446

Abstract : A study was made of the antioxidant action of higher phenols. Alpha-naphthol (I) and beta-naphthol (II) were used as comparison standards. Paraffin was subjected to oxidation. The objects of study were: phenol, o-cresol, phenol-cresol fraction, xylene fraction, polyalkylphenol fraction, I, II, waste products of the recovery of I or II, methyl naphthols, dimethyl naphthols, p-phenyl phenol, methyl phenyl phenols, heavy phenols (boiling above 330°) in an amount of 0.05-0.1%. The content of peroxides was determined. The study was based upon the well-known

Card 1/3

Application. Industrial Organic Synthesis

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2157

"APPROVED FOR RELEASE: 09/19/2001, CIA-RDP86-00513R000615530001-0"

paper.

A diagram and description of the unit for the oxidation of paraffin, are included.

Card 3/3

GOFMAN, M.V.

AUTHORS: Gofman, M.V., and Kharlampovich, G.D.

68-1-15/22

RUS'YANOVA, N.D.; GOFTMAN, M.V.; BURNISTRENKO, L.A.

Nitrogen-base coal resins as inhibitors of steel corrosion in
acids. Zhur. prikl. khim. v. 31 no.5:748-754 My '58. (MIRA 11:6)
(Gums and resins) (Steel--Corrosion)

5(3)

AUTHORS: Rus'yanova, N. D., Gofman, M. V. SOV/156-59-2-40/48

TITLE: The Extraction of High-Percentage Chinoline, Isochinoline and Acridine From the Bases of Coal-Tar (Polucheniye vysokoprotsentnykh khinolina, izokhinolina i akridina iz osnovednykh kamennougol'noy smoly)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1959, Nr 2, pp 376-379 (USSR)

ABSTRACT: Table 1 shows the boiling-points of the initial material, the basic coal-tar fraction with a specific weight of 1.1023. The computation of a rectifying column working at atmospheric pressure showed that a separation of chinoline and isochinoline is practically impossible under these circumstances. On the other hand, an experimental installation working at a vacuum of 60 mm Hg, produced chinoline with a purity of 94-95%, isochinoline with a purity of 56% and acridine with a purity of 38.5%. The pure preparation of the chinolines was obtained by an azeotrope rectification with diethylenglycol (Table 2). Chinaldine was eliminated as chinophthalone by phthalacidanhydride.

Card 1/2

The Extraction of High-Percentage Chinoline,
Isochinoline and Acridine From the Bases of Coal-Tar

SOV/156-59-2-40/48

Pure acridine was produced by crystallization in gasoline.
There are 3 figures, 2 tables, and 6 references, 4 of which
are Soviet.

PRESENTED BY: Kafedra khimicheskoy tekhnologii topliva Ural'skogo
politekhnikeskogo instituta im. S. M. Kirova
(Chair for Chemical Technology of Fuels Ural Polytechnic
Institute imeni S. M. Kirov)

SUBMITTED: July 7, 1958

Card 2/2

GOULDIAN, J.

18(5) PHASE I BOOK EXPLOITATION 509/2048

Sverdlovsk. Ural'skiy politkhnicheskii institut imeni S.M. Kirova
Teoriya i praktika lit'yego proizvodstva (Theory and Practice in the
Foundry Industry) Moscow, Mashgiz, 1959. 231 p. and 32 p.
(Series: Ita; [Sbornik] vyp. 89) Errata slip inserted. 5,000
copies printed.

Ed.: A.A. Gershteyn, Corresponding Member, USSR Academy of Sciences,
Doctor of Technical Sciences, Professor; Tech. Ed.: M.A. Dugin;
Assoc. Ed.: (Ural-Siberian Division, Mashgiz); A.V. Kislitsin,
Engineer.

PURPOSE: This book is intended for engineering and scientific workers
of institutes and machine-building plants, as well as for students
of advanced courses at vuzes.

COVERAGE: This collection consists of articles dealing with practical
problems in foundry processes. The articles review the achieve-
ments of Ural foundry workers in the past 40 years and present
aspects of a current study on the casting of nodular cast iron,
its properties and casting methods. A description is given of
artificial and architectural casting. Consideration is given to the
problem of eliminating gases in steel and aluminum. The structure
of castings is discussed. A recent investigation of vacuum
casting including its characteristic properties and new applications
is also presented. There are 32 pages of photographs illustrating
at the end of the book. 40 presumittides are mentioned. References
follow each article.

TABLE OF CONTENTS:

PART 2. IRON CASTINGS

Sorokina, M.V. [Doctor of Technical Sciences], and P.Ye. Efremov.
Lit'yevyye. Production of a Special Gaseous Briquet Fuel for Cupola 46
Purposes

The author discusses the disadvantages and economic losses re-
sulting from the use of blast-furnace and other low-quality
slag in cupola blast. The goal of the investigation involved
is to develop a new method of producing improved cupola coke
with gas permeability not higher than 20 to 25 percent, a low re-
actionability, and a given uniform mesh size. Laboratory in-
vestigations, the author confirms the possibility of producing
such coke from available materials.

Gershteyn, A.A., and Yu.P. Zerkhinov. Cupola slag 50
The authors describe the composition of cupola slag in con-
trolling the chemical composition of the iron, preventing de-
struction of the iron with gases from the furnace atmosphere, dis-
solving non-metallic inclusions, and controlling lining life.

They give the optimum composition of slag required for a furnace
with fire clay lining in order to insure proper operation of
the cupola and to produce a high-quality iron.

TSIPEROVICH, Moisey Veniaminovich; GOFMAN, M.V., red.; TSYBALIST,
N.N., red.izd-va; ZEP, Ye.M., tekhn.red.; MATLYUK, R.M.,
tekhn.red.

[Coal preparation in heavy media; fundamentals of theory and
practice] Obogashchenie uglei v tiazholykh sredakh; osnovy
teorii i praktika. Sverdlovsk, Gos.nauchno-tekhn.izd-vo lit-ry
po chernoi i tsvetnoi metallurgii, Sverdlovskoe otd-nie, 1959.
422 p. (MIRA 13:1)

(Coal preparation)

AUTHOR: Gelfman, M.V.

SOV/68-59-1-2C/26

TITLE: At the Chair of Chemical Technology of Fuels of the
Urals Polytechnical Institute (Na kafedre khimicheskoy
tekhnologii topliva Ural'skogo politekhnicheskogo instituta)

PERIODICAL: Koks i Khimiya, 1959, Nr 1, p 61 (USSR)

ABSTRACT: 1) A new technology of processing phenols which will
increase the yield of light phenols by 5-10% and improve
the quality of some high boiling phenols was developed. A
project of reconstruction of the phenol plant on the
Nizhniy Tagil Works "Plastmass" according to the new scheme
is being prepared. 2) A method of separate recovery of
ammonia and pyridine bases was developed and is being tested
on the Chelyabinskiy metallurgicheskiy zavod (Chelyabinsk
Metallurgical Works). 3) The work on the development of
a new method of ammonia recovery by absorption with acid
salts is being continued. In 1959, pilot plant experiments
will be organized on the Nizhniy Tagil Works.
4) Catalytic oxidation of phenanthrene-anthracene fractions
is being studied. 5) A method of producing high-quality
coke from blends containing anthracite was developed. The
method was introduced at the Leningrad/Gas Works.

Card 1/2

Possibilities of further increase in the proportion of

SOV/68-59-1-20/26

At the Chair of Chemical Technology of Fuels of the Urals
Polytechnical Institute

anthracite by its physical and chemical treatment are being studied. 6) A method of production of high-quality foundry-briquetted coke containing 80-85% of anthracite was developed. Works for the production of such briquettes to be erected in the Sverdlovsk economic region are being designed. 7) Evaluation of various types of brown coals as a chemical raw material is being investigated. Work on the production of metallurgical fuel from brown coals of the Kustanay district has been started.

Card 2/2

5(3)

SOV/80-32-A-36/47

AUTHORS: Kharlamovich, G.D., Gofman, M.V., Raukas, M.M. and Rus'yanova, N.D.

TITLE: Antiseptic Properties of the Components of Coal Tar (Antisepticheskiye svoystva komponentov kamennougol'noy smoly)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 4, pp 905-909 (USSR)

ABSTRACT: The antiseptic action of individual components of the coal-tar oil have not been sufficiently studied thus far. Therefore the authors undertook an investigation of the action of various coal-tar oils and their individual components, separated from these oils, on wood-destructive fungi of the *Coniophora cerebella* and *Merulius domesticus* species. The results of the experiments are shown in tables and in graphs where figures of the loss of weight, ascribed to the destructive action of the fungi, are given. Conclusions drawn by the authors are as follows:

1. Phenols are more effective antiseptics than bases and neutral compounds, the effectiveness of the latter two is approximately the same;
2. The alkylation raises the antiseptic activity of phenols;
3. Naphthols and their homologs are better antiseptics than phenol derivatives;
4. The activity of compounds with a condensed system of benzene rings is higher than that of compounds with disconnected benzene rings;
5. Compounds

Card 1/2

Antiseptic Properties of the Components of Coal Tar

SOV/89-32-4-36/47

containing the imino-group are a nutritive medium for the fungi, accelerating their growth. Moreover, it was established that a definite maximum of activity exists for all the groups of coal tar components, and the values of the temperatures of these peaks are given. It was also found out that toxicity of impregnating oils did not drop when phenols were removed from them, provided that the phenol content was less than 10%; however, with increasing content of phenols above 10% the toxicity of coal-tar oils increases. Therefore, coal-tar oils with phenol content higher than 10% are especially effective antiseptics. There are 3 graphs, 2 tables and 3 references, 1 of which is Soviet and 2 American.

ASSOCIATION: Ural'skiy politekhnicheskiy institut imeni S.M.Kirova (Ural Polytechnical Institute imeni S.M.Kirov)

SUBMITTED: October 4, 1957

Card 2/2

PHASE I BOOK EXPLOITATION SOV/4350

Soveshchaniye po khimii, tekhnologii i primeneniyu proizvodnykh piridina i khinolina. Riga, 1957

Khimiya, tekhnologiya i primeneniye proizvodnykh piridina i khinolina; materialy soveshchaniya (Chemistry, Technology and Utilization of Pyridine and Quinoline Derivatives; Materials of the Conference) Riga, Izd-vo AN Latviyskoy SSR, 1960. 299 p. Errata slip inserted. 1,000 copies printed.

Sponsoring Agencies: Akademiya nauk Latviyskoy SSR. Institut khimii; Vsesoyuznoye khimicheskoye obshchestvo.

Ed.: S. Bazhanova; Tech. Ed.: A. Klyavinya; Editorial Board: Yu. A. Bankovskiy, Candidate of Chemistry, E. V. Vanaga, Candidate of Chemistry (Resp. Ed.), L. P. Zalukayev, Doctor of Chemistry, and M. M. Kalnyn'.

PURPOSE: This book is intended for organic chemists and chemical engineers.

Card 1/10

Chemistry, Technology (Cont.)

SOV/4350

COVERAGE: The collection contains 33 articles on methods of synthesizing or producing pyridine, quinoline, and their derivatives from natural sources. No personalities are mentioned. Figures, tables, and references accompany the articles.

TABLE OF CONTENTS:

I. PYRIDINE AND QUINOLINE DERIVATIVES OBTAINED FROM THE THERMAL CRACKING PRODUCTS OF FUELS

Rus'yanova, N. D., and M. V. Gofman [Ural'skiy politekhnicheskiy institut (Ural Polytechnic Institut)] .Methods of Extraction and Ways of Utilizing Coal-Tar Bases 5

Ivashchenko, Ya. N. [Vostochnyy nauchno-issledovatel'skiy uglekhimicheskiy institut (Eastern Scientific Research Institute for Coal Chemistry)]. The Present State and Prospects for the Production and Utilization of Hard Coal Pyridine Bases 13

~~Card 2/10~~

60 F1 May 1959

Leningrad. Politekhnikheskiy Institut

PHASE I BOOK EXCERPTATION NOV/1959

Bozhenyuk doskizheniya i izyuzheniya protirodov; izudy
sostavov i nauchno-tekhnicheskoy komitetsii (Recent
achievements in foundry: Transactions of the Scientific
Committee of the Academy of Sciences of the USSR)
Moscow: Mashinostroyeniye, 1958. 385 p. Extra slip inserted.
4,500 copies printed.

Prof. Ed. I. Yu. A. Nezhdenko, Doctor of Technical Sciences,
Professor, Ed. I. M. O. Gilyayev, Doctor of Technical
Sciences, Professor, and L. F. Lohov, Doctor of Technical
Sciences, for literature on Heavy Machine Building (Leningrad
Department, Machine): Yu. P. Kuznetsov, Engineer, Tech. Ed.:
Yu. I. Gilyayev, and L. V. Shabalinina.

Purpose: This book is intended for the technical personnel
of foundries. It may be used by students of the field.

CONTENTS: This collection of articles discusses problems in
foundry processes. Individual articles treat the salting
of metals and their alloys, mechanization and automation
of casting processes, aspects of the manufacture of steel,
cast iron, and nonferrous metal castings. No personalities
are mentioned. References accompany individual articles.

Recent Achievements in Foundry (cont.) NOV/1959

18. Nezhdenko, I. M. Investigation of New Types of Fuel
for Cupolas 148

19. Nezhdenko, I. M. and P. Ya. Kozlov. New Methods of
Pouring Cupola Cokes 154

20. Gilyayev, I. M. Utilization of the Steel and Cast
Iron Chips in the Industry 159

21. Gilyayev, I. M. Temperature Regime of the Pouring (at
Casting) of Hydro-turbine Blades 165

22. Gilyayev, I. M. Laboratory Methods of Measuring the
Temperature of Molten Metals 169

IV. PROBLEMS OF WELD MAKING

23. Berg, P. P. Dimensional Accuracy of Castings 178

24. Obolentsev, P. D. Generation of Adhesion Forces
Between the Remelted Layer (Vick-up) and the Underlying
Card 5/9 183

KHARLAMPOVICH, G.D.; GOTTMAN, M.V.; RUS'YANOVA, N.D.

New method of recovering ammonia from coke-oven gas. Koks.i khim.
no.4:34-39 '60. (MIRA 13:6)

1. Ural'skiy politekhnicheskiy institut.
(Ammonia) (Coke-oven gas)

GOFMAN, M.V., prof.; KHARLAMPOVICH, G.D.; RUS'YANOVA, N.D.

Ways of utilizing coke-gas ammonia. Zhur. VKHO 5 no.1:38-42 '60.
(MIRA 14:4)

(Ammonia)

(Coke-oven gas)

GOFMAN, M.V.; KHARLAMPOVICH, G.D.; RAUKAS, M.M.; RUS'YANOVA, N.D.

Antiseptic properties of the products of coal tar. Trudy Ural.
politekh. inst. no.94:90-102 '60. (MIRA 15:6)
(Coal tar) (Antiseptics)

S/068/61/000/007/001/001
E071/E435

AUTHORS: Rus'yanova, N.D., Goftman, M.V., Gordeyeva, Z.K.,
Privalov, V.Ye., Zubok, A.M. and Khomutinkin, G.V.

TITLE: Production of High Percentage Phenanthrene

PERIODICAL: Koks i khimiya, 1961, No.7, pp.48-52


TEXT: It was recently established that phenanthrene can be used for the production of diphenic acid (a raw material for high quality plastics and resins) and 9-10 phenanthrene quinone (a valuable fungicide) but a technology for its production on coke-oven by-product plants was not available. The authors carried out an investigation in order to establish the most suitable starting raw material and operating equipment and practice for the production of phenanthrene fraction from which a high percentage (above 90%) phenanthrene can be obtained. As about 80% of phenanthrene in tar is concentrated in the anthracene oil, the latter was considered as the most suitable starting material. Calculations of the necessary column efficiencies for the separation of the pair phenanthrene-carbazole were carried out for a fraction containing 27% of phenanthrene and 2% carbazole (anthracene oil obtained from Card 1/6

Production of High ...

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the first anthracene fraction) and for a fraction containing 25% of phenanthrene and 11% of carbazole (a mixture of anthracene oil and the second anthracene fraction). The results indicated that the first type of raw material can be rectified on a column equivalent to 17 theoretical plates into an 80% phenanthrene fraction, while in order to obtain a similar product from the second type of raw material, a column equivalent to 50 theoretical plates would be necessary. Laboratory distillations of the above two raw materials as well as of the first anthracene fraction and raw anthracene were carried out on a column equivalent to 25 theoretical plates. The results of these laboratory distillations showed that the optimum raw material for the production of a concentrated phenanthrene fraction is anthracene oil. The laboratory results were checked on an industrial scale in the by-product plant of the Nizhne-Tagil Metallurgical Combine. A mixture of anthracene oil from the first and second anthracene fractions, containing 24% of phenanthrene, 11% of carbazole and 3% of anthracene was used for the experiments. The oil was washed with a 15% alkali and 25% acid. Rectification of the

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Production of High ...

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washed oil (29.5 tons) was done on a column 1 m in diameter with 33 bubble cup trays. The collection of the fractions was done from a side outlet on the 27th plate. During the rectification two fractions were collected: first up to 320°C (a light fraction) and the second, phenanthrene fraction 320 to 345°C (25.5% of the charge). This contained 80% of phenanthrene, 8% of carbazole and 7.7% of anthracene. All together 84.97% of phenanthrene was recovered in the fraction. It is considered that a vacuum distillation would be more suitable. The required efficiency of the column for the separation of the pair phenanthrene-carbazole for a raw material containing 11% of carbazole under various pressures was calculated. On the basis of the above investigations, the following technological scheme for the production of phenanthrene fraction is proposed: anthracene oil washed from phenols and bases is heated in a pipe furnace to 280°C and passed into the first column equivalent to 18 to 20 theoretical plates. The light fraction is collected at the top, while the residue from the bottom is passed into a second column equivalent to 25 to 28 theoretical plates. The phenanthrene fraction is collected

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Production of High ...

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E071/E435

from the top of this column while a part of the residue from the bottom is utilized as a heat carrier, i.e. it is passed into the tube furnace, where it is again preheated and returned to the second column. Both columns operate under a vacuo at 100 mm Hg. The production of high percentage phenanthrene from the phenanthrene fraction was also tested. The fraction contains anthracene, carbazole and various oils (mainly a mixture of methyl homologues of fluorene, phenanthrene and anthracene). Phenanthrene used for further oxidation should be freed from carbazole and resinous substances. It was established that on treatment of phenanthrene fraction with 85% sulphuric acid at 35 to 50°C, phenanthrene is not sulphonated but a carbazole sulphate is obtained which, after separation of the acid layer, can be recovered by dilution of the latter with water (to an acid concentration of 50 to 55%). The treatment removes also resinous substances. This was as follows: the fraction was dissolved in xylene 1:2 or benzene 1:3 and treated with 85% sulphuric acid at 25 to 50°C. The consumption of acid depends on the concentration of carbazole. At a content of 2 to 3%, one

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E071/E435

Production of High ...


washing with 5 vol.% of sulphuric acid for 15 minutes is sufficient. With a carbazole content of 8 to 10%, 2 to 3 washings, each time with fresh acid, are necessary. After the treatment with sulphuric acid the product usually contained not more than 0.2 to 0.3% of carbazole. After distilling off the solvent and a redistillation of the fraction to remove oils, it was pressed at 100 to 120 atm. A 90 to 92% product, melting at 91 to 93°C with an 80% yield was obtained. The main admixture was anthracene. Some laboratory tests (not described) indicated that the product is suitable for the production of diphenic acid. Under industrial conditions, a product melting at 92 to 94°C was obtained. After a single recrystallization from alcohol (1:5), phenanthrene melting at 99 to 100°C was obtained. There are 1 figure, 6 tables and 13 references: 8 Soviet-bloc and 5 non-Soviet-bloc. The work of L.D.Gluzman (Ref.6: Koks i khimiya, 1959, No.2) is mentioned. The references to English language publications read as follows:
 R.E.Dean, E.N.White, D.McNeil, J.Appl.Chem., 1953, 3, 10, 469;
 V.N.Kamat, J.de Sa, F.Fernandes, J.Sci.Ind.Res. 1956, 15, p.8;
 U.S.Patent 2575314, C.A., 1952, 8152.

Card 5/6

Production of High ...

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E071/E435

ASSOCIATIONS: Ural'skiy politekhnicheskiy institut (Ural
Polytechnical Institute) (Rus'yanova, N.D.,
Goftman, M.V. and Gordeyeva, Z.K.);
VUKhIN (Privalov, V.Ye.);
Nizhne-Tagil'skiy metallurgicheskiy kombinat
(Nizhne-Tagil Metallurgical Combine) (Zubok, A.M.
and Khomutinkin, G.V.)



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S/068/62/000/001/002/002
E071/E435

AUTHORS: Rus'yanova, N.D., Kharlampovich, G.D.,
Belyayeva, G.F., Gofman, M.V.

TITLE: Oxidation of anthracene-phenanthrene fraction with the
production of anthraquinone, phthalic and maleic
anhydrides

PERIODICAL: Koks i khimiya, no.1, 1962, 47-52

TEXT: The process of oxidation of the above fraction in the air-
vapour phase over a vanadium-potassium-sulphate-silica gel
catalyst (K-26) used in the industrial oxidation of naphthalene
was investigated on a laboratory scale. The starting fraction
was obtained by rectification of raw anthracene fraction with a
column equivalent to 25 theoretical plates. The yield of the
fraction was about 50% on raw anthracene. About 80% of
anthracene and 75 to 80% of phenanthrene were concentrated in this
fraction; mean composition: anthracene - 40 to 45%,
phenanthrene - 35 to 40% and carbazole - 10 to 15%. The
oxidation of pure anthracene and phenanthrene takes place under the
following identical conditions: temperature 370°C, contact time
2.3 to 2.4 seconds, load on the catalyst 25 to 30 g/litre hr.
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Oxidation of anthracene- ...

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Whereupon from anthracene, anthraquinone is obtained with a yield of 60% and from phenanthrene 54% of phthalic and 13.3% of maleic anhydrides. On shortening the contact time, the oxidation is incomplete and among the products of oxidation of phenanthrene lactone of 2-oxydiphenyl-2' carbonic acid is formed. The oxidation of anthracene-phenanthrene fraction at 370°C and contact time of 2.3 to 2.4 seconds leads to its complete combustion. Only on shortening the contact time to 2 sec was a yield obtained which was equal to that obtained from pure products at a contact time of 2.4 sec. However, there are substantial differences in the conditions of oxidation of phenanthrene:

- 1) the reaction products contained lactone, which on oxidation of pure phenanthrene appears only at a contact time of 1 sec;
 - 2) there was a decrease in the combustion of phenanthrene and the total yield of its oxidation products increased to 90% (72% acid products and 18% lactone). On shortening the contact time to 1.36 sec, a similar phenomenon was observed for anthracene; due to a decrease in the degree of complete combustion the yield of anthraquinone increases to 81%. On further shortening of the contact time to 1.06 sec, the yield of
- Card 2/65

S/068/62/000/001/002/002

EO71/E435

Oxidation of anthracene- ...

anthraquinone increased to 84% but simultaneously the yield of anhydrides decreased. An increase in the load on the catalyst from 50 to 66 g/litre hr has a positive influence on the process. Optimum conditions at 370°C were: 1.36 sec contact time and 66 g/litre hr load on the catalyst. The composition of the mixture (proportion of anthracene to phenanthrene and the content of carbazole) also has a considerable influence on the process (Table 3). In the experiments the oxidation products - anthraquinone, lactone and a part of the phthalic anhydride (about 20%) - were caught in the air condenser, the remaining products in water. The separation of the reaction products presented no difficulties. Anthraquinone was purified by washing with hot water to remove phthalic anhydride, with a 20% alkali to remove lactone and then sublimated. The pure product had a melting temperature of 286 to 287°C. The aqueous solution of phthalic and maleic acids was evaporated in vacuo and anhydrides redistilled. These can be used as a mixture or separated on the basis of the difference in their solubility in water. It is considered that under industrial conditions, the condensation of the oxidation products should be done in two

Card 3/6 ✓

Oxidation of anthracene- ...

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stages; single-stage scrubbing would be difficult due to a high density of the product pulp (a high concentration of anthraquinone). The first stage scrubbing should be done in a Venturi scrubber with a water spray as the cooling medium. It is concluded that the oxidation of anthracene-phenanthrene fraction containing approximately equal proportions of anthracene and phenanthrene and a minimum amount of carbazole would be advantageous on an industrial scale. There are 5 figures, 5 tables and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc. The reference to an English language publication reads as follows:
Ref.1: Kinneu, C.R., Pinkus, I. Ind. Eng. Chem. 1951, 43, no.12, 2880.


ASSOCIATION: Ural'skiy politekhnicheskiy institut
(Ural Polytechnical Institute)

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Oxidation of anthracene- ...

S/068/62/000/001/002/002
E071/E435

Table 3.

1. raw material
 2. contact time, sec
 3. load on catalyst, g/litre hr
 4. Yield at the theoretical
 5. anthraquinone
 6. lactone
 7. phthalic anhydride
 8. maleic anhydride
 9. 55% anthracene, 35% phenanthrene and 10% carbazole
 10. 45% anthracene, 40% phenanthrene and 15% carbazole.
- 

Card 5/65

GOFTMAN, Mikhail Vladimirovich; ZINGER, S.L., red.izd-va;
ISLENT'YEVA, P.G., tekhn. red.

[Applied chemistry of solid fuel] Prikladnaia khimiia tverdo-
go topliva. Moskva, Metallurgizdat, 1963. 597 p.

(MIRA 16:7)

(Fuel) (Coal)

RUS'YANOVA, N.D.; GOFTMAN, M.V.; BELYAYEVA, G.F.

Recovery of concentrated phenanthrene from the phenanthrene fraction. Koks i khim. no.8:40-42 '63. (MIRA 16:9)

1. Vostochnyy uglekhiyicheskiy institut (for Rus'yanova).
 2. Ural'skiy politekhnicheskiy institut im. Kirova (for Gofman, Belyayeva).
- (Phenanthrene) (Coke industry--By-products)

GOFTMAN, M.V.; NEFEDOV, P.Ia.

Briquetted coke fuel for cupola furnaces. Koks i khim. no.3:
31-34 '64. (MIRA 17:4)

1. Ural'skiy politekhnicheskiy institut (for Gofman).
2. Vostochnyy uglekhimicheskiy institut (for Nefedov).

LEVIN, I.S.; BELIF, T.M.; GOFTMAN, N.V.

New types of binders for briquetting derived from petroleum. Ugol'
40 no.6:66-69 Je '65. (MIRA 18:7)

1. Ural'skiy politekhnicheskiy institut.

100-100, 11.

Structure of various central nervous system sections following
experimental concussion of the brain. 1966, 11 6-12, 501-22
no. 106-100 15 155. (MIR 1419.)

CA GOFUNG, G.

17

Drying pancreas at low temperatures R. Kauh Hesh-
vili and V. Chubong *Myrmecops Ind.* S.S.S.R. II, No 11,
72 (1960) M. M. Piskur .

1961

Gofung, I. I.

USSR / Pharmacology, Toxicology, Narcotics and Hypnotics.

U-2

Abs Jour : Ref. Zh.-Biol., No 2, 1958, No 7926

Author : Gofung, I. I., Tsatskis, B.Z.

Inst :

Title : Proprioceptive Effects of Ethyl Alcohol

Orig Pub : Kurskiy Med. in-t, 1956, Vyp. 3, 22-27

Abstract : Experiments were performed on frogs. The muscle surface of the left thigh and the gastrocnemius muscles of both legs were exposed to a 5 -96° concentration of ethyl alcohol on a 5 X 5 cm filter paper for 30 seconds. It was established that a 5 -96° concentration of ethyl alcohol, acting on muscle receptors, caused a cardioinhibitory reflex. Ligation of the blood vessels of the extremity had no effect, although by tying the sciatic nerve above the site of the

Card : 1/2

Card : 2/2

GOTUNG, V.Ye., kand.med.nauk

Condition of the teeth and mouth in children with Down's disease.
Stomatologia 38 no.5:16-17 8-0 '59. (MIRA 13:3)

1. Iz detskoy polikliniki No.1 Kiyevskogo rayona Moskv (glavnyy
vrach M.A. Rogachevskaya).
(MENTAL DEFICIENCY) (MOUTH)

GOG, H.

For multiple use of combines; harvesting small grains with harvesting-threshing machines, p. 12, ALLAMI GAZDASAG (Allami Gazdasagok Miniszteriuma es a Mezogazdasagi es Erdeszeti Dolgozok Szakszervelete) Budapest, Vol. 8, No. 6, June 1956

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 5, No. 11, November 1956

GOGA, Emilian, ing.

Cast iron used in the charge, and its influence on the hardness
of rolling-mill cylinders. Metalurgia constr mas 13 no.12:1023-
1027 II '61.

GOGA, Emilian, ing.

Device for mechanical centering of the ladle for casting
steel in ingots. Metalurgia constr mas 14 no.8:755-756
Ag '62.

1. Uzina "Otelul Rosu".

GOGA, Emilian, ing.

Manufacture of semicalmed steel. Metalurgia si constr mas
15 no.3:215-217 Mr '63.

GOGA, F.

Ways of improving certain planned indexes in the exploitation of rolling stock. p. 571.

REVISTA CAILOR FERATE. (Caile Ferate Romine) Bucuresti, Rumania.
Vol. 6, no. 11, Nov. 1958.

Monthly List of East European Accessions (EEAI) IC, Vol. 8, no. 7, July 1959

Uncl.

GOGA, Florian I., ing.

Influence of the state of the curves on the circulation of railroad vehicles. Rev caillor fer 11 no.1:18-22 Ja '63.

1. Directia regionala Caille Ferate Romine, Timisoara.

GOGA, Florian I., ing.

Practical method for determination of the opening out of
the line on railroad curves. Rev caillor fer 11 no.11:632-
637 N'63.

1. Sectia L3, Timisoara.

GOGA, Florian I., ing.

Effect of supplementary strain produced in rails by dislevelments.
Rev callor fer l3 no.3:149-157 Mr 65.

1. Section L3, Timisoara.

VEDYAPIN, M.G.; GOGA, I.V.; SHALDAISOV, A.P.

Wider use of winches for roof caving. Ugol' 35 no.2:19-23
F '60. (MIRu 13:5)

1. Kiselevskiy mashinostroitel'nyy zavod Kemerovskogo
sovnarkhoza.
(Winches) (Mining engineering)

VEDYAPIN, M.G.; GOGA, I.V.; SHALDAISOV, A.P.

Industrial testing of the LMK-20 shunting winch. Ugol' 39 no.1:
50-51 Ja '64. (MIRA 17:3)

1. Kiselevskiy mashinostroitel'nyy zavod.

L 54486-65

RU/0017/64/000/010/0421/0433

ACCESSION NR: AP5017714

AUTHOR: Iatan, N. (Engineer); Goga, L. (Engineer)

TITLE: Considerations on certain quartzites found in the Rumanian People's Republic used in the manufacture of iron-silicon

SOURCE: Metalurgia, no. 10, 1964, 429-433

TOPIC TAGS: quartz, iron, silicon

ABSTRACT: A description of the quartzites from Hobita, Dealul Cernei and Platina Rucasa. The chemical composition of the different types is given, as are the principal physical properties including macroscopic and microscopic structure, density, water sorption capacity, softening point and behavior when heated to 1,500 degrees centigrade. Orig. art. has 4 figures, 10 graphs, and 7 tables.

ASSOCIATION: Institutul de cercetari metalurgice (Metallurgical Research Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: MR, RM

NO REF SOV: 000

OTHER: 000

JPTB

Card

GOGA, M., ing.

Aspects of the designing of woven fur imitations. Ind text
Rum 16 no.1:29-31 Ja '65.

1. "Tenatoriile Reunite" Weaving Factory, Bucharest.

ZUBOVICH, V.K.; GOGA, P.I.

Cervical pregnancy. Zdrav. Bel. 7 no.6:57-58 Ju '61. (PIRA 15:2)

1. Iz Luzhskoy sel'skoy uchastkovoy bol'nitsy Vitebskoy oblasti
(glavnyy vrach V.K.Zubovich).
(PREGNANCY, EXTRAUTERINE)

ILIESCU, C.C., prof.; KLEINERMAN, L., conf. ; GOGA, S., dr.

Reserpine in the treatment of several arrhythmias. Med. int.,
Bucur. 12 no.1:49-54 Ja '60.

1. Lucrare efectuata in Clinica medicala a Spitalului "Bernat
Andrei", Bucuresti.
(ARRHYTHMIA, therapy)
(RESERPINE, therapy)

ROMANIA

DRAGANESCU, C. I., MD; COGA-IONESCU, Silvia, MD; CSAP, C. F., MD;
COPORAN, Rodica, MD.

Institute for Oncology, Bucharest (Institutul Oncologic,
Bucuresti) - (for all); Director: Lecturer O. Costachel.

Bucharest, Medicina Interna, No 12, Dec 63, pp 1435-1438

"Results Obtained in two Cases of Severe Leukothrombopenia,
/ with Haemorrhagi-parous Syndrome Occurring after Administration
of Cytostatics, treated with Homologous Haematopoietic Tissue."

(11)

STANIEWSKI, Ryszard; KOWALSKI, Mieczyslaw; SOGACZ, Edward; SOKOLOWSKA, Franciszka

Susceptibility of Rhizobium strains to phages. Acta microbiol. polon.
11 no.3:245-254 '62.

1. From the Department of General Microbiology, Mariae Curie-
Sklodowska University, Lublin.
(RHIZOBIUM) (BACTERIOPHAGE)

GOGASZ, Nowalany; GOGACZ, Jan

Effect of isonicotinic acid hydrazide on permeability of tissues and blood vessels. Gruslica 23 no.2:81-87 Feb '55.

1. Z Kliniki Gruźlicy A.m. we Wrocławiu. Kierownik: docent dr.med. T. Garbiński, i z Sanatorium Przeciwgruźliczego P.K.P. w Szklarskiej Porębie Dolnej Dyrektor: dr m. Mostowski. (W pracach laboratoryjnych brała udział asyst.tech. B.Urbaniowicz) Szklarska Przeba Dolna, Sanatorium PKP.

(NICOTINIC ACID ISOMERS, effects

isoniazid on blood vessel & tissue permeability)

(OSMOSIS AND PERMEABILITY

permeability of blood vessels & tissues, eff. of isoniazid)

(BLOOD VESSELS, physiology

permeability, eff. of isoniazid)

POLAND/General Problems of Pathology - Pathophysiology of the
Infectious Process.

U

Abs Jour : Ref Zhur Biol., No 6, 1959, 27269

Author : Garbinski, Tadeusz; Gogacz, Jan

Inst : -

Title : On the Possibility of Utilization of Experimental
Tuberculosis of the Eye in Rabbit for Investigation of
the Process Dynamics in Tuberculous Focus

Orig Pub : Gruzlica, 1957, 25, No 3, 189-194

Abstract : After introduction to rabbits into the camera oculi ante-
rior of 40-80 ml of mycobacterium tuberculosis (MT) of
human type, 3 types of tuberculous process were discove-
red which depended on the individual characteristics of
the animal without relation to the amount of introduced
MT. The I type is characterized by a limited violent
inflammatory reaction of conjunctiva and partially of
iris with fast reverse development and scar formation.

Card 1/2

S/056/63/044/002/023/065
B102/B186

AUTHORS: Kulik, I. O., Cogadze, G. A.

TITLE: Quantum oscillations in the tunnel contact current of two metals in a magnetic field

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 2, 1963, 530-535

TEXT: The authors consider two different metals which are separated by a thin semiconductor layer to which a constant or alternating magnetic field is applied perpendicularly. The tunnel contact current oscillations arising in both cases are calculated (cf. also: Phys. Rev. Lett. 5, 55, 1960; J. Phys. Chem. Sol. 19, 8, 1961; Phys. Rev. 123, 85, 1961). It is shown that these oscillations allow the determination of the extreme cross-sections of the Fermi surface and of the effective masses of the quasi-particles. For the small electron groups the amplitude of the oscillations is sufficiently great; for the large groups it is very small since the probability of tunnelling through the potential barrier is extremely small for the electrons at the extremum sections responsible for the

Card 1/2

S/056/63/0.4/002/023/065
B102/B186

Quantum oscillations in the ...

oscillation phenomena. Another type of oscillation caused by oscillations of the chemical potentials of the metals can be observed in alternating magnetic fields in which the pulse duration T is smaller than the relaxation time τ of the tunnel diode. The amplitude of the oscillation of the chemical potential ξ can be estimated from the relation

$$\xi^{\text{osc}} \sim \frac{\pi}{\sqrt{2}} \theta \left(\frac{\mu H}{kT} \right)^{1/2} \exp(-2\pi^2 \theta / \mu H). \text{ With } \theta = 10^0 \text{ K and } H = 10^4 \text{ oe for}$$

the small electron groups, $\xi^{\text{osc}} \sim 10^{-3} - 10^{-4}$ ev; for the large groups it is $\sim 10^{-6}$ ev. τ is estimated from $\tau = RC$ (R and C of the contact); for $v_F \sim 10^8$ cm/sec, $n \sim 10^{22}$ cm $^{-3}$, and $S \sim 1$ cm 2 one obtains $\tau \sim 10^{-3}$ sec.

$T \leq RC$ is easily achieved by raising the gap width. The experimental possibilities are such that the ξ -oscillations can be observed even at relatively high temperatures. There are 2 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut nizkikh temperatur Akademii nauk Ukrainskoy SSR (Physicotechnical Institute of Low Temperatures of the Academy of Sciences Ukrainskaya SSR)

SUBMITTED:
Card 2/2

June 17, 1962

ACCESSION NR: AP4025924

S/0056/64/046/003/0913/0919

AUTHOR: Gogadze, G. A.; Itskovich, F. I.; Kulik, I. O.

TITLE: Quantum oscillations of cold-emission current of metals in a magnetic field

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 46, no. 3, 1964, 913-919

TOPIC TAGS: cold emission, field emission, tunnel current, tunnel current oscillation, chemical potential, number of electronic states, complex cathode emission

ABSTRACT: Following an earlier study of the oscillations of the tunnel current between two metals separated by a thin layer of dielectric, which yielded a more accurate determination of the effective mass and which showed that the tunnel-current oscillations depend significantly on the oscillations of the chemical potential of the metals, the authors investigate theoretically the oscillations of the field-emission current from a metal in a magnetic field perpendicular to the sample surface. The oscillations are shown to be due either to oscillations

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ACCESSION NR: AP4025924

in the number of the electronic states in the magnetic field or to oscillations of the chemical potential of the metal, the latter having usually an appreciable amplitude and the former being significant only for metals having small electron groups. As an example, the features are considered of field emission from a complex cathode consisting of two metals separated by a thin layer of dielectric, through which tunnel current can flow. It is shown that a considerable current can exist even in a relatively weak field incapable of inducing appreciable emission from one of the metals (in the absence of a potential difference between metals). The field-emission current exhibits oscillations associated with both metals. It is pointed out that an experimental investigation of these oscillations is extremely difficult. Orig. art. has: 4 figures and 16 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut nizkikh temperatur AN UkrSSR (Physicotechnical Institute of Low Temperatures, AN UkrSSR); Khar'kovskoye vy'sheye komandno-inzhenernoye uchilishche (Khar'kov Engineer Officers' College).

SUBMITTED: 27Jul63

DATE ACQ: 16Apr64

ENCL: 00

SUB CODE: PH, GE

NR REF SOV: 009

OTHER: 001

Card 2/2

L 38541-65 EWT(1)/EWT(m)/EWP(b)/T/EWP(t) 81-2 IWP(c) GO/11

ACCESSION NR: AP5005278

S/0181/65/001/002/0112/0140

AUTHOR: Gogadze, G. A.; Kulik, I. O.

TITLE: Oscillations of the tunnel current from thin metallic layers

SOURCE: Fizika tverdogo tela, v. 7, no. 2, 1965, 432-440

TOPIC TAGS: thin film, tunnel effect, quantum effect, potential barrier, superconductivity, particle collision

ABSTRACT: As a supplementary means of studying the energy spectra, the authors investigate theoretically quantum effects arising when electrons tunnel through a potential barrier. These effects are connected with the finite thickness of the metal films constituting the tunnel junction, and are considered for the case when one of the metals (or both) is sufficiently thin (10^{-7} cm in most metals, but as thick as 10^{-5} in the case of bismuth and some other metals). The tunnel current oscillates as a function of the applied bias, and the effective mass of the quasi-particles can be determined from the oscillation period. The authors are interested not in the absolute value of the current, but in its variation upon quantization of the spectrum (for example, on going from the region of high temperatures

Card 1/2

L 38541-65

ACCESSION NR: AP5005278

2

to low ones). If the tunnel junction is made up of a normal metal film and a superconductor, oscillations of a new type arise, without the usual temperature dependence. Using the approach developed by R. B. Dingle (Proc. Roy. Soc. N. A211, 500 and 517, 1952) the authors investigate also the influence of volume and surface collisions on the amplitude of the current oscillations, and show in particular that the amplitude of the n -th oscillating harmonic decreases by a factor p^{2n} (p -- coefficient of specularity in the reflection of the electron from the film boundary). It is noted that unlike volume collisions, where the oscillation amplitude depends on the reciprocal scattering time exponentially, the variation is slower and not exponential in the case of surface collisions. For example, at a specularity coefficient $p = 0.3$ the amplitude of the first oscillating harmonic will decrease only by a factor of approximately 10. "We thank V. L. Bonch-Bruyevich for reading the paper and useful remarks." Orig. ext. has: 31 formulas and 3 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut nizkikh temperatur AN URSR, Kharkov
(Physicotechnical Institute of Low Temperatures, AN URSR)

SUBMITTED: 18Jul64

ENCL: 00

SUB CODE: 83, 84

NR REF SOV: 004

OTHER: 007

Card 2/2 MB

DRAGANESCU, C.I., dr.; GOGA-IONESCU, Silvia, dr.; CSAP, C.F., dr.
COPORAN, Rodica, dr.

Results obtained in two cases of severe leukothrombopenia with a hemorrhagic syndrome, appearing after administration of cytostatics, treated with homologous hematopoietic tissue. Med. intern. 15 no.12:1435-1438 D'63.

1. Lucrare efectuata in Institutul oncologic, Bucuresti (director: conf. O.Costachel).

(S-6-HA H, H)

AUTHOR: Gogala, A., Engineer

307-127-33-37/11

TITLE: Methods of Exploitation of Metal Ores in Yugoslavia (Sistemy razrabotki na metallicheskih rudnikakh Yugoslavi)

PERIODICAL: Gornyy zhurnal, 1959, Nr 3, pp 35-39 (1959)

ABSTRACT: The author sums up information received on the exploitation of various ore deposits in Yugoslavia. In 1956, 60% of copper ore and 70% of bauxite were extracted by open-pit mining. In the lead-zinc mine "Mezhitse", both the overhand stoping and open-pit methods are used. In the Bor copper mine the sub-level caving method is used. The polymetal mines "Trepcha" and "Rudnik", as well as the lead-zinc mine "Zhetovo" are exploited by overhand stoping method. Some details of labor productivity are given. The article was translated from Serbo-Croatian by Engineer Ya. A. Feldman. There are 4 figures.

1. Mining industry--Yugoslavia
2. Ores--Production

Card 1/1

Proyektiny institut metalurgii, Belgrad, Yugo-Slavaya Narodnaya Respublika

GOGALA, A.

"Planning, designing and rationalization of coal mines" by Alois Rimar. Reviewed by A. Gogala. Rud mot zbor no.2:162 '62.

PAVKO, D.; OCEPEK, Drago, dr. inz., docent; GRAFENAUER, S.;
SICHERL, B.; KERSNIC ML., V.; PAULIN, A.; GORUP, M.;
CAZAFURA, K.; VIDERGAR, F.; ANLIN, F.; KAVCIC, J.;
KERSNIC, Viktor, prof. dr. inz.; GOGALA, A.; RAMOVŠ, A.;
SKUBIC, T.

New books. Rud met zbor no. 2:189-216 '64.

1. Chief Editor, "Rudarsko-metalurški zbornik" (for Kersnic,
Viktor).

GOGALA, L.

"News of Aviation", P. 6, (REPULES, Vol. 7, No. 13, July 1954, Budapest, Hungary)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

GOGALA, Matjaz, MICHIELI, Stefan

Seasonal change of colors in some species of Heteroptera.
Biol vest no.10:33-44 '62.

1. Bioloski institut Univerze v Ljubljani. 2. Urednik,
"Biolonki vestnik" (for Michieli).

GOGALA, M.; MICHELI, S.

Color of Heteroptera. Bul sc Youg 7 no.3:61-62 Jo '62.

1. Bioloski institut Univerze, Ljubljana.

GOGALA, Matjaz; RUTENFELT, Stefan

Monophasic and diphasic retinograms in insects. Biol inst 12:13-20
'64.

L. Biologic Institute of the University of Ljubljana, Ljubljana.
Submitted July 31, 1964.

GOGALADZE, A.S. (L'vov)

Cysticercosis in the radiogram. Vest.rent.f rad. 34 no.5:80-82 S-0
'59. (MIRA 13:3)
(CYSTICERCOSIS radiography)

GOGALADZE, A.S.; RASPOPOV, M.M.; MOIN, S.R.

Lateroscope. Vest. rent. 1 rad. 36 no. 1:60 Ja-F '61. (MIRA 14:4)
(X RAYS—APPARATUS AND SUPPLIES)

GOGALADZE, A.S.

Dosimetric apparatus for filling the large intestine with a contrast medium. Vest. rent. 1 rad. 36 no. 2:61-63 Mr-Ap '61. (MIRA 14:4)
(RADIOLOGY, MEDICAL—EQUIPMENT AND SUPPLIES)

GOGALADZE, A.S.; KUZNETSOV, I.L.

Closed lesion of the lung. Vest. ~~roat~~. i rad. 28 no.2:63-64
Mr-Ap'63. (MIRA 16:9)
(LUNGS--WOUNDS AND INJURIES)